

REMARKS

Claims 1-23 are currently pending in the application. By this amendment, claim 6 is amended to correct a typographical error. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Information Disclosure Statement

Applicants appreciate the consideration of the references in the IDS submitted July 31, 2003.

35 U.S.C. §112 Rejection

Claim 6 was rejected under 35 U.S.C. §112, 2nd paragraph. Claim 6 has been amended to recite "assigned output groups". Accordingly, Applicants respectfully request that the rejection of claim 6 be withdrawn.

35 U.S.C. §103 Rejection

Claims 1-23 were rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. 6,107,588 issued to De Leo et al. in view of U.S. Publication No. 2002/0104782 to DeWitt. Claims 1-23 were rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. 6,274,836 issued to Walach ("Walach") in view of DeWitt.¹ These rejections are respectfully traversed.

¹ Applicants note that the patent numbers of the De Leo et al. and Walach references are not listed in the Detailed Action. However, as in the previous office action, it is assumed that De Leo et al. refers to U.S. Pat. No. 6,107,588 and Walach refers to U.S. Pat. No. 6,274,836.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2142.

Claims 1-23 in view of De Leo and DeWitt

Rejection of Independent Claims 1, 5 and 21

As previously discussed, by way of non-limiting example, implementations of the invention provide that, during a second pass sort, each of a plurality of input feeding devices feeds product to output bins of a respective assigned output group. Additionally, rejected product from any of the input feeding devices may be fed to a common (e.g., accessible by all input feeding devices) reject bin of a single output group.

Claim 1 recites, *inter alia*,

... a control system having a mode which constrains the input feeding devices to (i) feeding non-rejected product to output bins of assigned output groups of the plurality of output groups associated with a corresponding one of the plurality of input feeding devices, and (ii) feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders.

Claim 15 recites, *inter alia*,

... feeding, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices.

Claim 21 recites, *inter alia*,

means for permitting, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the feeding means.

The applied references do not teach or suggest these features.

The Examiner asserts that De Leo discloses the features of claims 1, 5 and 23, except that De Leo fails to explicitly disclose "feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders" (claim 1), "feeding rejected product of the plurality of product to an output bin common and accessible to any of the input devices" (claim 15) and "means for permitting rejected product of the plurality of product to an output bin common and accessible to any of the feeding means" (claim 21). Applicants agree that De Leo does not show any of these features, amongst other features of the claimed invention.

The Examiner, however, is of the opinion that DeWitt shows a reject bin and the remaining features noted above, and asserts that it would have been obvious to modify De Leo by utilizing the reject bin of DeWitt to thus achieve the claimed inventions. DeWitt shows a reject bin, however, Applicants respectfully disagree with the remaining portions of the Examiner's argument.

As previously discussed, De Leo shows a two pass system. In a first pass, a stream F_i of randomly ordered postal objects 7 is fed to first and second input devices A, B (Fig. 1a; col. 2, lines 25-49). Based upon a portion of a code associated with each object 7, a controller 22 directs the objects to any one of a plurality of output bins U_i . After the first pass, a container 20 is removed from each bin U_i in a specified order to create collections C_a and C_b (Fig. 1a; col. 4, lines 30-67). Subsequently, new, empty containers 20 are fitted into each bin U_i . In the second pass, each of the feeders is constrained to a set of containers, e.g., subsets W_a and W_b ; that is, in DeLeo, the input feeders, in the second pass, only feed product to its respective subset. Thus, in DeLeo, the separate feeders are not configured to feed product outside of its subset. More specifically, in the second pass, the postal objects of collection C_a are fed to first input device A, and are directed towards a first subset W_a of output bins (Fig. 1b; col. 5, lines 10-31). Similarly, the postal objects of collection C_b are fed to second input device B, and are directed towards a second subset W_b of output bins. This would teach away from the claimed invention, as discussed in more detail below.

The Examiner, though, is of the opinion that DeWitt shows the use of reject bins and, in particular, "feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders" (claim 1), "feeding rejected product of the plurality of product to an output bin common and accessible to any of the input devices" (claim 15) and "means for permitting rejected product of the plurality of product to an output bin common and accessible to any of the feeding means" (claim 21). Although Applicants agree that DeWitt shows the use of a reject bin, it is clear that DeWitt does not teach (as with De Leo) that any of the feeding

devices can feed rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders.

More specifically, DeWitt shows a reject bin which is accessible to only one feeder 15 which is designed to serially feed envelopes into transport 75. (See, FIG. 1 and paragraph [0052].) The DeWitt disclosure makes no mention, whatsoever, that more than one feeder has access to the same reject bin. To the contrary, Applicants submit that DeWitt only discloses a single feeder 15, and that due to the modular configuration of DeWitt, the feeder only can access a reject bin within that modular configuration. More specifically, the single feeder 15 only has access to a single group of output bins, one of them being the reject bin. There simply is no disclosure that the reject bin is accessible by many different feeders, a proposition that would not seem possible in the DeWitt modular configuration.

Also, the Examiner refers to paragraph 105 of DeWitt to show the missing features of the claimed invention. However, paragraph 105 simply mentions:

Alternatively, if the MICR line or OCR line is not fully read for a document, the document along with the other documents in the same transaction may be directed to a reject bin. If documents are directed to a reject bin, then the image computer 260 discards the image data for the documents in the transaction.

There is no disclosure, whatsoever, that the reject bin is accessible by many different feeders, assigned to different groups. As argued above, DeWitt does not have the ability, due to its modular configuration, to have more than one feeding device accessing a common reject bin.

In this rejection, the Examiner is also of the opinion that DeWitt shows a plurality of feeding devices at reference numeral 460 for the purpose of separating items which have been misread or partially read from those that have been properly processed. Applicants submit that DeWitt only shows one feeding device at reference numeral 15. Reference numeral 460, on the other hand, refers to one or more drop slots or chutes (see, paragraph 0159). The drop chutes are not input feeding devices.

De Leo, similarly, explicitly states that postal objects from input A can only be directed toward the bins of output group W_a , and postal objects from input B can only be directed toward the bins of output group W_b (col. 5, lines 15-26). That is, De Leo explicitly discloses that, during the second pass phase, postal objects from input A can only be directed toward the bins of output group W_a , and postal objects from input B can only be directed toward the bins of output group W_b (col. 5, lines 15-26). Thus, De Leo teaches directly away from an output bin in a single output group that is accessible to any of the plurality of input feeders. Thus, the combination of the applied references would result in separate feeding devices having access to their own reject bin, which is not a common reject bin to all of the feeding devices.

Moreover, as discussed in the Background section of the instant invention, Applicants are aware of the use of rejection bins *per se*. Reject output bins are typically provided in each output group to ensure faster sequencing of the non-rejected mail pieces. The combination of references would result in exactly what is already known: separate feeding devices having access to their own reject bin, which is not common to all of the feeding devices. Applicants maintain that prior to the invention, it was not known to constrain, in a second pass, each of a plurality of input feeders to a respective

output group and to feed rejected products to at least one output bin of a plurality of output bins in a single group accessible to any of the plurality of input feeders. Applicants' inventive use of one or more reject bins in a single group that is accessible to all of the input feeders overcomes the problem of decreased capacity that is present when each group has its own reject bin(s).

Rejection of Dependent Claims 2-14, 16-20, 22 and 23

Applicants respectfully submit that claims 2-14, 16-20, 22 and 23 depend from an allowable independent claim, and are allowable by virtue of the allowability of the respective independent claim. Furthermore, Applicants submit that the combination of De Leo and DeWitt does not teach or suggest many of the features of the dependent claims.

For example, DeWitt does not teach or suggest that rejected product can be fed to a single output bin in a single group from many different feeders. To the contrary, DeWitt only shows a single feeder and, as discussed above, in DeWitt, there is no mention or suggestion that different feeders can feed to a common reject bin in a single group, much less in a separate output group from the assigned output group (see, e.g., claims 2 and 6). And, in the modular configuration, this would not even be possible.

Additionally, neither applied reference teaches a commonly accessible output bin, as recited in claims 17 and 19. Instead, as discussed above, De Leo explicitly teaches away from a commonly accessible output bin during the second pass phase. And, DeWitt does not teach separate groups. Instead, in DeWitt, only a single group is shown, where a reject bin is part of the single group. Additionally, there is no

suggestion or motivation to expand the concept of one group to several groups. Even assuming there was some motivation to expand the concept to several groups, which Applicants do not agree, such an arrangement would still not suggest each feeder having access to a single reject bin in one group.

Accordingly, Applicants respectfully request that the rejection over claims 1-23 be withdrawn.

Claims 1-23 in view of Walach and DeWitt

Rejection of Independent Claims 1, 5 and 21

Claim 1 recites, *inter alia*,

a plurality of input feeding devices each randomly receiving product from a stream of product ...

... and (ii) feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders.

Claim 15 recites, *inter alia*,

providing a plurality of product from a stream of product to any of a plurality of input devices; ...

... and feeding, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices.

Claim 21 recites, *inter alia*,

means for providing a plurality of product from a stream of product ...

... and means for permitting, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the feeding means.

The applied references do not teach or suggest these features.

The Examiner asserts that Walach discloses the features of claims 1, 5 and 21, except that Walach fails to explicitly disclose "feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders" (claim 1), "feeding rejected product of the plurality of product to an output bin common and accessible to any of the input devices" (claim 15) and "means for permitting rejected product of the plurality of product to an output bin common and accessible to any of the feeding means" (claim 21). Applicants agree that Walach does not show any of these features, amongst other features of the claimed invention.

Again, the Examiner is of the opinion that DeWitt shows the use of reject bins and, in particular, "feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders" (claim 1), "feeding rejected product of the plurality of product to an output bin common and accessible to any of the input devices" (claim 15) and "means for permitting rejected product of the plurality of product to an output bin common and accessible to any of the feeding means" (claim 21). Although Applicants agree that DeWitt shows the use of a reject bin, it is clear that there is no teaching in either of the references that any of the feeding devices can feed rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders.

More specifically, Walach discloses a method and system for object sorting. The system comprises a multi-bin article sorter preferably comprising a plurality of P input bins and a plurality of N output bins (col. 5, lines 37-43). In a first pass, the articles are

sorted into N output groups of articles being placed by the sorter in each of the N output bins. After the first pass, the N output groups are grouped into P input groups. The P input groups are resorted by placing each of the P input groups into a corresponding one of the P input bins. The sorter sorts the P input groups into N new output groups, each of the N new output groups being associated with and fed by one of the P input bins (col. 5, lines 47-63). Walach discloses that, before the first pass, the articles are divided approximately equally between the two input bins (col. 7, lines 8-9).

Contrary to the Examiner's assertions, Walach does not teach or suggest a plurality of input feeding devices each randomly receiving product from a stream of product. Walach does not disclose a stream of product. Moreover, Walach does not disclose that the input bins P randomly receive products from anything, much less from a stream of product. Instead, Walach merely discloses input bins P and a sorter, and that the articles are divided approximately equally between the input bins. This does not, however, constitute randomly receiving products from a stream of product. In fact, this may even teach away from such inventive features of the claimed invention. Specifically, dividing the product equally amongst the feeders by definition cannot be random.

Moreover, Walach teaches away from the claimed invention since, during the second pass phase, the sorter is used to sort the P input groups into N new output groups, each of the N new output groups being associated with and fed by exactly one of the P input bins (col. 5, lines 61-62). Thus, Walach teaches directly away from an output bin in a single output group that is accessible to any of the plurality of input

feeders, an output bin that is common and accessible to any of the input devices and/or an output bin that is common and accessible to any of the feeding means.

The Examiner, though, is of the opinion that DeWitt shows the use of reject bins and, in particular, "feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders" (claim 1), "feeding rejected product of the plurality of product to an output bin common and accessible to any of the input devices" (claim 15) and "means for permitting rejected product of the plurality of product to an output bin common and accessible to any of the feeding means" (claim 21). Although Applicants agree that DeWitt shows the use of a reject bin, it is clear that there simply is no teaching in either of the references that any of the feeding devices can feed rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders.

More specifically, DeWitt shows a reject bin which is accessible to only one feeder 15 which is designed to serially feed envelopes into the transport 75 (see, e.g., FIG. 1 and paragraph [0052]). The DeWitt disclosure makes no mention, whatsoever, that more than one feeder has access to the same reject bin. To the contrary, Applicants submit that DeWitt only discloses a single feeder 15, and that due to the modular configuration of DeWitt, the feeder only can access the single reject bin. More specifically, the single feeder 15 only has access to a single group of output bins, one of them being the reject bin. There simply is no disclosure that the reject bin is accessible from many different feeders, a proposition that would not seem possible in the DeWitt apparatus.

Also, the Examiner refers to paragraph 105 of DeWitt to show the missing features of the claimed invention. However, paragraph 105 simply mentions:

Alternatively, if the MICR line or OCR line is not fully read for a document, the document along with the other documents in the same transaction may be directed to a reject bin. If documents are directed to a reject bin, then the image computer 260 discards the image data for the documents in the transaction.

There is no disclosure, whatsoever, that the reject bin is accessible by many different feeders, assigned to different groups. As argued above, DeWitt does not have the ability, due to its modular configuration, to have more than one feeding device accessing a common reject bin.

In these rejections, the Examiner is also of the opinion that DeWitt shows a plurality of feeding devices at reference numeral 460 for the purpose of separating items which have been misread or partially read from those that have been properly processed. Applicants submit that DeWitt only shows one feeding device at reference numeral 15. Reference numeral 460, on the other hand, refers to one or more drop slots or chutes (see, paragraph 0159). The drop chutes are not input feeding devices.

Moreover, as discussed in the Background section of the instant invention, Applicants are aware of the use of reject bins *per se*. However, Applicants maintain that the combination of Walach and DeWitt would result in the known art, i.e., a system and method where in a second pass each of a plurality of input feeders have access only to their own reject bin, which is not common to all of the feeding devices.

Rejection of Dependent Claims 2-14, 16-20, 22 and 23

Applicants respectfully submit that claims 2-14, 16-20, 22 and 23 depend from an allowable independent claim, and are allowable by virtue of the allowability of the respective independent claim. Furthermore, Applicants submit that the combination of Walach and DeWitt does not teach or suggest many of the features of the dependent claims.

For example, DeWitt does not teach or suggest that rejected product can be fed to a single output bin in a single group from many different feeders. To the contrary, DeWitt only shows a single feeder and, as discussed above, in DeWitt, there is no mention or suggestion that different feeders can feed to a common reject bin in a single group, much less in a separate output group from the assigned output group (see, e.g., claims 2 and 6). And, in the modular configuration, this would not even be possible.

Additionally, neither applied reference teaches a commonly accessible output bin, as recited in claims 17 and 19. Instead, as discussed above, DeWitt does not teach separate groups. Instead, in DeWitt, only a single group is shown, where a reject bin is part of the single group. Additionally, there is no suggestion or motivation to expand the concept of one group to several groups. Even assuming there was some motivation to expand the concept to several groups, which Applicants do not agree, such an arrangement would still not suggest each feeder having access to a single reject bin in one group.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 19-0089.

Respectfully submitted,
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